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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/841,473 | 04/24/2001 | Gerald D. Sauder | 12748-0010 | 5310 |

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| EXAMINER | |
|---|---|
| HAUGLAND, SCOTT J | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3654 | |

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/841,473 | SAUDER ET AL. | |
| | Examiner | Art Unit | |
| | Scott Haugland | 3654 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 February 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Drawings*

The corrected or substitute drawings were received on 2/24/03. These drawings are accepted.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-6 and 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 2 of claims 2-6 "said unidirectional clutch assembly" lacks sufficient antecedent basis.

On line 2 of claims 10-14 "said unidirectional clutch means" lacks sufficient antecedent basis.

Claims 9-16, 20, and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The language "said viscous clutch means exerting a second retarding torque between said spool and said support frame when said spool is rotated in said" in claim 9, lines 17-19 lacks support in the original disclosure. The specification at page 9, lines 10-15 states that rotation in the unwinding direction of the reel disengages the clutch to allow freewheeling without substantial resistance from the viscous clutch assembly.

There is no support in the original disclosure for the language added to claims 20 and 21. Specifically, there is no disclosure of a unidirectional viscous damper having vanes having pivots and stops or vanes that fold radially inward when the spool is rotated in a first direction and that fold radially outward when the spool is rotated in a second direction.

Claims 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as

to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure does not teach how to make or use the unidirectional viscous damper having vanes that have pivots and stops, that fold radially inward when the spool is rotated in a first direction, and that fold radially outward when the spool is rotated in a second direction.

## *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7, 9, 15, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hedlund.

Hedlund shows an apparatus for storing an elongate member, comprising a support frame 5, a spool 8 rotatably supported by the support frame 5 and having a cylindrical body and a pair of flanges extending radially outwardly from opposite ends of the cylindrical body, and an elongate member wound about the spool, the elongate member having a free end extending from the support frame, and a fixed end 12 fixed to the spool (see figure 1). A spring rewind motor 22 is operatively disposed between the support frame and the spool, the spring rewind motor exerting a torque on the spool in a first rotational direction caused by the paying out of the elongate member from the spool (see column 2, lines 58-63). A unidirectional viscous clutch assembly 25 is operatively disposed between the spool and the support frame to exert a retarding torque between the spool and the support frame. The unidirectional viscous clutch assembly includes a viscous clutch comprising a housing 26 defining a sealed chamber, a viscous liquid contained in the chamber (see column 3, line 25), and a plurality of vanes 28, 30 disposed in the chamber. The unidirectional viscous clutch assembly also includes a unidirectional clutch assembly 41 operatively disposed between the spool and the support frame, which operates to disengage the viscous clutch when the spool is rotating in the first, payout direction of the spool, and operating to engage the viscous clutch assembly such that the viscous clutch exerts a retarding torque

between the spool and the frame to limit rotational velocity of the spool when the spool is rotated to rewind the elongate member (see column 1, lines 17-21, and column 3, lines 59-67).

The unidirectional viscous clutch assembly of Hedlund meets the limitation of the claims that it is "between" or "operatively disposed between" the spool and the support frame, since it is located in the path of transmission of torque between these two elements. This interpretation of the claim language is consistent with Applicant's usage, in which the unidirectional viscous clutch assembly 50 is described as being between the spool 26 and support frame 34.

With regard to claim 9, the viscous clutch of Hedlund is seen to exert a retarding force in the first (paying out) rotational direction to the same extent that Applicants' viscous clutch means does.

With respect to claims 7, 15, and 18, the vanes of Hedlund comprise a plurality of stator and rotor discs 28 and 30, such that the viscous liquid is sheared in a plurality of annular gaps between the discs.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-6 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedlund.

In the apparatus of Hedlund described above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any of well-known unidirectional clutch, including a ramp and ball clutch, a ratchet and pawl, a sawtooth axial gear clutch, a ramp and roller clutch, or a helical spring clutch, to comprise the unidirectional coupling 41, because each of the claimed unidirectional clutches functions in substantially the same way and achieves an identical result. Hedlund discloses that the configuration of the coupling 41 is not critical, but rather may be any per se known coupling. It would be well within the level of skill of one skilled in the art to select from among known unidirectional couplings.

Claims 8, 16, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedlund in view of Hiraoka.

Hiraoka discloses an apparatus for storing an elongate member by winding, including a viscous clutch assembly including a housing 3 which

defines a sealed chamber, a viscous liquid therein, and a plurality of vanes or paddles 12 disposed within the sealed chamber. In as much as Applicant's specification does not provide a description of the structural difference between a vane and a paddle, the structure shown by Hiraoka is considered to be accurately described by either term.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Hedlund with a viscous clutch which includes a plurality of vanes or paddles as taught by Hiraoka, because the vanes or paddles would provide a different level of resistance than the disks of Hiraoka, which would be desirable based on the type of material stored on the reel. With regard to claims 20 and 21, Hiraoka is seen to have the various claimed vane features to the extent supported by Applicants' original disclosure.

***Response to Arguments***

Applicant's arguments filed 4/22/03 have been fully considered but they are not persuasive. Applicant argues that the claims have been amended to claim an invention that was clearly in Applicants' possession prior to the filing date of the Hedlund reference. However, the application does not disclose the invention (the unidirectional viscous damper of Exhibit

A) that Applicants' declaration filed 2/4/03 shows they invented prior to the filing date of Hedlund. Instead, the application discloses the combination of a viscous damper and a unidirectional clutch. All embodiments are disclosed as having both of these elements. Note that the description of Fig. 8 starting on page 10, line 7 as originally filed or as amended 9/27/02 indicates that the damping device shown in Fig. 8 is an alternative design of the viscous damper. The viscous damper described in Applicant's specification prior to the Fig. 8 viscous damper is disclosed only in combination with a unidirectional clutch. The disclosure does not present the structure shown in Fig. 8 as a substitute for the entire unidirectional viscous clutch assembly 50. Nor does it state that the paddles 190 pivot in response to a change in direction of rotation of the hub. It does not even say that they pivot. The declaration shows only that an invention other than the invention disclosed in this application was invented before the filing date of the Hedlund reference. The declaration shows that the combination of a viscous damper and unidirectional clutch disclosed in this application was invented after the filing date of the reference. While the base claims may be broad enough to read on the Exhibit A device, the only disclosed instances of the claimed structure contain both the damper and unidirectional clutch, which was invented after the date in question and there is no disclosure of a unidirectional viscous damper (functioning as both a damper and

unidirectional clutch) at all. Therefore, Hedlund is available prior art against this application.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (703) 305-6498. The examiner can normally be reached on Monday - Thursday and every second Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (703) 308-2688. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

sjh
June 18, 2003

Kathy Matecki

KATHY MATECKI
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